

REMARKSStatus of the Application

Claims 1-20 are pending. Claims 1-8 and 10-20 stand rejected. Claim 9 is objected to.

Election/Restriction

All three species have the same objective: increasing the bending stiffness of a corner post by increasing the thickness of the corner post middle layer while using the same amount (weight) of material. Nevertheless, applicants affirm their election of Species I, claims 1-11 and 16-20. Claims 12-15 have been withdrawn from consideration.

Drawings

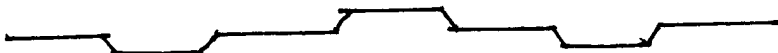
The drawings are objected to. In response, applicants submit a new set of drawing sheets, including new sheet 7/7 with Figures 9, 9a, 10 and 10a under separate cover. A copy of the drawing sheets is attached for reference.

Section 112 Rejections

Claims 4, 17 and 19 have been objected to. In response, and by way of example only, applicants state that paper embossed "on one side only" means paper in which the nubs extend outward from the plane of the paper on one side only, as shown below:



By way of example only, paper embossed on two sides has nubs extending from the plane of the paper on both sides, as shown below:



In further response, applicants submit new Figures 9, 9a, 10 and 10a which illustrate the round and I-shaped structures recited in claims 17 and 19. As stated in paragraph [0045] of the specification as filed, an I-shaped cross-sectional post could be used to support and cushion the side of a product. A round cross-sectional shaped post could be used to protect the corner or side of a product.

Section 102 Rejections

Claim 1 has been rejected under 35 U.S.C. Section 102 as being anticipated by Qiu U.S. Patent No. 6,186,329. Applicants respectfully disagree for the following reasons.

The '329 patent is owned by Sonoco Development, inc., the owner of the present patent application. Yanping Qiu is the sole inventor on the '329 patent and a co-inventor on the present application. As stated in paragraph 0007 of the present application: "The present invention builds on the idea of making a support post from multiple kinds of paper, but instead of using multiple kinds of paper of similar thickness as taught in the Qiu '329 patent, the present invention uses paper of different thicknesses." The essence of the present invention is to create volume within a post wall at low cost.

For example, claim 1 requires a post in which "the middle layer [is] thicker in at least some areas than the outer facing layers..." This limitation is shown graphically in Figures 3 and 4

where the middle sheet 14 is thicker than the sheets 12, 16 that form the outer layers of the post. The Qiu '329 patent does not teach this limitation. Rather, Qiu '329 teaches that "...the joined sheets have a uniform thickness." (Col. 3, lines 49-51 and Fig. 4.)

Section 103 Rejections

The Examiner rejected claims 2-7, 10, 11 and 16-20 under 35 U.S.C. Section 103(a) as being unpatentable over Qiu in view of Braun U.S. Patent No. 5,799,797.

As an initial matter, applicants submit that claims 2-7, 10, 11 and 16-20 are allowable for at least the same reason as base claim 1 is allowable (see above).

Regarding claims 2-6, they require that the middle layer of the post be embossed paper, which Braun does not teach. Braun teaches a post made of corrugated paperboard material (col. 4, line 23 and Fig. 3). Modifying Qiu's base sheet to have Braun's corrugated structure would not result in the post of claims 2-6.

Furthermore, corrugated paperboard material cannot be wound into the "hollow tube" of claim 1 without crushing the fluted layer of the corrugated board, rendering the final product useless as a support post.

Regarding claims 10 and 11, Braun does not teach a structure having a middle layer that is low density paper. Low density is described in the specification at paragraph 0043 and depicted graphically in Figure 7. Low density paper is paper having

increased bulk for a given weight. By contrast, Braun's middle layer presumably is the same paperboard used to make the outer layers, albeit fluted.

Claim 8 is rejected under 35 U.S.C. Section 103(a) as being unpatentable over Qiu in view of Braun U.S. Patent No. 5,799,797 and Liebel 5,131,541. Applicants respectfully disagree for at least the following reason. Claim 8 requires a convolutedly wound post having varying wall thicknesses. Claim 8 is supported in the specification at paragraph 0042 and Figure 6. In Figure 6, for example, ends 29, 31 are thicker than the rest of the post walls. The Examiner states that Liebel teaches varying wall thicknesses. However, Liebel does not teach a convolutedly wound post having varying wall thicknesses, merely an L-shaped corner post having a layer of fibreboard laminated to the outside of the corner post along the edge of the post where it is expected to experience higher stress. Modifying the Qiu post according to the teachings of Liebel would result in a hollow tubular corner post having a layer of fibreboard laminated along the outer corner of the Qiu post, not the post as claimed in claim 8 of the present application.

Allowable Subject Matter

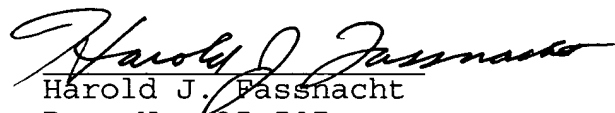
Applicants note with appreciation examiner's statement that claim 9 would be allowable if rewritten in independent form.

Summary

It is believed that this paper constitutes a complete

response to the Office Action mailed August 24, 2004, and an early and favorable action allowing claims 1-11 and 16-20 is respectfully requested. The Examiner is invited to telephone applicants' undersigned attorney if any unresolved matters remain.

Respectfully submitted,


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